

Amendments to the Claims:

1-19. (Canceled).

20. (Currently amended) A DNA molecule for removing a nucleic acid sequence that has been inserted into a host cell, the DNA molecule comprising, flanked by recombinase sites in a single nucleotide chain, (a) a spatially or temporally restricted promoter operably linked to (b) a recombinase gene, and (c) said nucleic acid sequence to be removed.

21. (Previously presented) The molecule of claim 20, wherein said recombinase site is selected from the group consisting of loxP and FRT.

22. (Previously presented) The molecule of claim 20, wherein said recombinase gene is selected from the group consisting of Cre and FLP.

23. (Previously presented) The molecule of claim 21, wherein said recombinase gene is selected from the group consisting of Cre and FLP.

24. (Previously presented) The molecule of claim 20, wherein said molecule further comprises a gene which is desired to be expressed in a cell.

25-31. (Canceled).

32. (Previously presented) The nucleic acid molecule of claim 20, wherein said nucleic acid sequence is a wild-type allele or fragment thereof of a gene.

33-42. (Canceled).

43. (Currently amended) A method for deleting a nucleic acid sequence from a mouse cell genome in a regulatable manner utilizing a promoter, wherein said nucleic acid sequence is part of a DNA molecule comprising, flanked by recombinase sites in a single nucleotide chain, a spatially or temporally restricted promoter operably linked to a recombinase gene and said nucleic acid sequence to be removed, the method comprising inserting said DNA molecule into the genome of said mouse cell, and growing said mouse cell such that said promoter is active, said recombinase gene is expressed in the cell and said nucleic acid sequence is deleted.

44. (Previously presented) The method of claim 43, wherein the DNA molecule further comprises a gene which is desired to be expressed in the cell.

45. (Previously presented) The method of claim 44, wherein said nucleic acid sequence is heterologous DNA.

46. (Previously presented) The method of claim 44, wherein the promoter is specific to the male or female gamete.

47. (Previously presented) The method of claim 43, wherein the mouse cell is transgenic for said DNA molecule and said nucleic acid sequence is deleted during gametogenesis in the mouse.

48. (Previously presented) The method of claim 47, wherein said nucleic acid sequence is heterologous DNA.

49. (Currently amended) A transgenic mouse ~~comprising which~~ contains a DNA molecule comprising, flanked by recombinase sites in a single nucleotide chain, (a) a spatially or temporarily restricted promoter operably linked to (b) a recombinase gene, and (c) a nucleic acid sequence to be removed, wherein said DNA molecule has been stably integrated into the genome of said transgenic mouse.

50. (Previously presented) The method of claim 43, wherein said nucleic acid sequence is heterologous DNA.

51. (Previously presented) The method of claim 43, wherein said nucleic acid sequence is a wild-type allele or fragment thereof of a gene.

52. (Previously presented) The method of claim 44, wherein said nucleic acid sequence is a wild-type allele or fragment thereof of a gene.

53. (Previously presented) The method of claim 43 wherein the cell is part of a tissue and the promoter is a promoter specifically expressed in said tissue.

54. (Previously presented) The method of claim 53 wherein the nucleic acid molecule further comprises a gene which is desired to be expressed in the tissue.

55. (Previously presented) The method of claim 53, wherein said nucleic acid sequence is a wild-type allele or fragment thereof of a gene.

56. (Previously presented) The method of claim 53, wherein said nucleic acid sequence is heterologous DNA.

57. (Previously presented) The method of claim 53 wherein said tissue is male or female gametic tissue.

58. (New) The molecule of claim 20 wherein said recombinase gene contains an intron.

59. (New) The molecule of claim 58 wherein said intron is a SV40t-antigen sequence.

60. (New) The method of claim 43 wherein said recombinase gene contains an intron.

61. (New) The method of claim 60 wherein said intron is an SV40t-antigen sequence.

62. (New) The transgenic mouse of claim 49 wherein said recombinase gene contains an intron.

63. (New) The transgenic mouse of claim 62 wherein said intron is an SV40t-antigen sequence.